THE GENESEE FARMER.

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THE GENESEE FARMER.

SATURDAY, J ULY 19, 1834.

On Soiling Cattle.

When on a journey some years ago, we remember passing the night with an old friend of ours; and that early in the morning we went with him to release his sheep from a pen in which he confined them at nights as a security against the dogs. It was enclosed by a pale or picket fence, about six feet in height. There was room enough for the sheep to lie down, but not much to spare, and we observed that they appeared to suffer by the confinement. Had the enclosure been many times more capacious, their health would have been in better preservation; and where flocks are in imminent danger from either dogs or wolves, especially when that danger may be expected to continue for some years, the proprietors should be encouraged to go spiritedly to work, and make a fold of several acres. We are satisfied it would prove the most profitable in the end.

We have been reminded of this subject by reading some articles in the "Memoirs of the Pennsylvania Agricultural Society" on soiling cattle. Much has been written in favor of this practice; but without going into the reasons offered, we shall give the RESULT OF EXPERIMENTS. The first extract is from the pen of *John Hare Powel*, Esquire.

"I have tried soiling for many years. My experiments have been made with great accuracy, in the most favorable circumstances, and with all the zeal, and all the prejudices which my European recollections could beget. Twenty cows during one season, were secured in stalls properly arranged in a cool and shaded place—in the next summer, green food was dropped thrice a day at convenient distances, beneath trees in a wood—in another, the animals were tied in a stone barn, with every advantage of regular and close attention. *I am confirmed in the belief that in this climate, soiling can seldom be profitable.* I doubt whether one of the arguments adduced in its favor, ought not to operate essentially against it. It is asserted, and by no less authority than Sir H. Davy, (to whom in all deductions from scientific inquiry, I would most implicitly yield, yet in the selection of nutricious from noxious weeds, I should much more readily follow the instinct of an* ox) "that cattle are obliged when soiled, to feed without making selection, and in consequence the whole food is consumed." The brute creation is directed by instinct to avoid at particular times certain plants, and at all times to shun others. So powerfully does it influence the dog, that he seizes with avidity the grass which immediately convulses his stomach, but causes him to void the offensive matter with which it was charged.

"I have seen my cattle consume among cut grass, weeds which in the field they could not be brought to touch—they afforded as much milk, but did not at the end of the season show the healthful skins, wet muzzles, and clear eyes, which I had been accustomed to notice."

Our second extract is from Major *Rudd* of Marton Lodge, near Stockton on Tees, in England, an enlightened agriculturist and successful breeder of Neat Cattle and Sheep. It appears in a letter to *John Hare Powel*, Esquire, published in his "Hints for American Husbandmen."

"You read much in our English publications of the expediency of *soiling cattle* in the house, during the whole of the year. *I do not approve of this practice*, for it is surely an unnatural one, as air and exercise, and the selection of their own food, must benefit cattle, as other animals are benefitted by them. *I can say from actual experience of the two systems, that cattle thrive much better in the fields* during the period from the middle of May to the middle of November, than they do when confined in a house. Soiling cattle is very little practiced in England."

* This remark may appear caustic, but it is the dictate of good sense. The conclusions of chemists on *some* subjects connected with agriculture, have been very different from what practical farmers have been authorized by the sure test of experience, to adopt. We shall only refer at present to the practice of *early mowing*. According to experiments *chemically conducted*, it is best to mow as soon as the grass is in bloom; but notwithstanding, it is proved that such fodder is far less nutritive and palatable, than hay which is made when the seed is ripe. The stomach of the ox, is in this case, the better *apparatus*.

On Ploughing Straight Furrows.

It has been wittily said that more corn grows in *crooked* rows than in *straight* ones; and that *white* sheep eat more than *black* ones. These sayings have been put forth as puzzles. A straight line indeed, is the shortest that can be drawn between two points; and a crooked row being longer, may of course contain more hills at the same distance apart; but this is not the explanation accepted. Both cases are comprised in the same terms: *there are* MORE OF THEM.

In some places, farmers take a pride in ploughing straight furrows, and in planting straight rows of corn. The gardener is scarcely more particular when he works by his *line*. CRABBE refers to this in his "Parish Register," where he complains of the bad writing of English ploughmen:

> ——"How strange that men
> *Who guide the plough*, should fail to guide the pen.
> *For half a mile, the furrows even lie;*
> For half an inch, the letters stand awry;"

and we can well remember when a crooked furrow was a subject for reproach or reprehension. Much however depends on the nature of the ground that is ploughed. We have observed that emigrants from stony hills, have no pride of this kind until they acquire it in cultivating smooth and level lands. We do not think that drawing straight furrows is the most unequivocal test of good ploughmanship; but as a rule liable to some exception, we believe that the best farmers show the most taste; and that the more we can imbue them with this quality, the better will they manage their business.

For the Genesee Farmer.

Correction.

In the remarks on Rape seed (page 205) copied from the Journal of the Franklin Institute, it is called "Colchicum!" How such a name got into that article, might puzzle wiser heads than mine to find out, for Rape and Colchicum are plants that differ as much as Turneps and Hyacinths. In England it is often called Cole but not Colchicum.

I will also take the liberty to add in reference to the remarks on Saffron at page 203, that the English Saffron is *Crocus sativus*, belonging to the Linnæan class TRIANDRIA, and that the Saffron called "ours," is *Carthamus tinctorius* which belongs to the class SYNGENESIA. As the writer properly remarks, these are very different plants. The latter however, a native of Egypt, is "cultivated at present in many parts of Europe, and in the Levant, where great quantities are annually imported into England for dyeing and painting."

The descendants of the Germans in Pennsylvania, and some of them in the state of New York, cultivate the English Saffron for domestic purposes.

A. Z.

For the Genesee Farmer.

Highways---No. XXVII.

As far as I have observed, it is a melancholy fact that the more careless and negligent the pathmaster, the better is the condition of the roads in his district, provided there are no miry places, nor bridges nor culverts out of repair. I may be asked, how can this be? and I am ready to answer, because the labor as it is commonly applied *in deep rich soils*, does more harm than good. I have just returned from an excursion of several miles, and wherever the roads have been totally neglected (always excepting bridges, &c.) they are in better condition by far, and will continue so through the season. In wet weather, the ruts are neither so deep nor so wide; and in dry weather there are fewer loose stones in the way. The reason of this must be plain to any man who will take the trouble to observe. Sods, and muck, and stones are now piled up in the beaten track; and so little is the kind of stuff regarded, that I have seen chip dirt from the wood pile, and even manure from the stable, all heaped promiscuously together! In some places these heterogenous materials have been leveled, and smoothed over with the harrow; but in many districts they are left as rough as the waves. This is called mending the roads!

Some say that the road taxes are not high enough; and last year in this town, our burdens were increased fifty per cent. To what purpose? That more sods and muck and stones might be scraped into the road. Not a drag was applied within the limits of my knowledge; and in most of the districts, I saw no appearance of any stones having been thrown out. If one half of the tax now assessed, was *properly* applied, our

roads would be in fine condition. Our present taxes are too high by half, because it enables our path masters to do the more (unintentional) mischief. In one district where a heavy tax has just been "worked out" it would be a great improvement if all *the stuff* that has been carried into the road with so much labor, was thrown back again. The road has been permanently damaged by their work.

Although I am much disposed to complain under the present system, I would most cheerfully consent to have our taxes doubled, if they could be applied in the right manner. For instance: Where old "crossways" still remain, we may be sure that the ground was originally miry; and the best thing to be done is, to remove not only the logs, but *the old muck that lies under them*, clearing it off down to the solid earth. When this shall be done, then fill up the place with gravelly earth, and the difficulty is overcome. Let us make the road good as far as we go, and it may not want repairing in twenty years.

VIATOR.

For the Genesee Farmer.

Beet Culture.

MR. TUCKER—In answer to an inquiry for information on the subject of *beet culture*, (signed J. A. C.) on page 182, vol. 4 of the Genesee Farmer, I would respectfully submit the subjoined remarks. They are the result of considerable experience, acquired in the cultivation of different species of that useful plant, during the past three or four years.

I prepare the seed in the first place by passing it over a sieve or screen, so as to separate the light and less perfect ones from the good. This is then put to soak in a tub of pure water, and suffered to remain 48 hours; when the water is poured off, the seed continuing in the tub, is stirred daily until vegetation has commenced and the sprouts make their appearance. This is effected in six or eight days.

The ground allotted to the purpose is first ploughed very deep, and afterwards subjected to the action of a heavy roller. It is next thrown into ridges about three feet apart, by passing the plough back and forth in the intermediate space, forming alternately with the ridges trenches of near a foot in depth. These trenches are then partly filled with manure made the preceding winter, and the ridges transferred to the spaces occupied by the manure, by passing the plough through them as before described. Small trenches are then made with the hoe upon the top of the ridges, as last formed, for the reception of the seed. The seed is then rolled in plaster, and deposited with a light covering. I have found it an important advantage to the vegetating seed, to pass a light hand roller over it when sown, so as to press the earth closely about it, probably by retaining it in a state of moisture longer than when the earth is left more porous.

To facilitate the work of sowing, (a matter not to be overlooked when the crop is large) in the absence of a *drill barrow*, I fastened a crooked handle three feet in length upon the side of a tin pan; through the bottom of the pan a hole was perforated of a proper size, to admit the passage of the seed as fast as requisite. With this pan filled with seed I was able to walk erect by the side of the ridge, and with a slight shake and swinging motion of the hand in the direction of the row, distribute the seed with all necessary precision. In this way of disposing my beet crops, I am enabled to cultivate them almost exclusively with the plough, it being only necessary to hand weed in the immediate vicinity of the plants.

By pursuing the above method my beets have suffered from *no disease*, nor have they at any time been assailed by worms or insects of any kind as far as observable.

SENECA LAPHAM.

Champaign co., (O.,) July 3, 1834.

For the Genesee Farmer.

MR. TUCKER—I should be pleased to ascertain through the medium of your paper, from any of your correspondents who can furnish the information, if, on trial, the pulverized limestone has been found equal to the calcined and slacked lime as manure; if so, what kinds of soil it is best adapted to improve; the particular species of rock used; and the most easy method of preparing it. There is a soft species (geodiferous lime rock) abundant in this vicinity, which would be easily pulverized, and if found equal or superior manure to slacked lime, would be quite an advantage.

S. LAPHAM.

Bees.

A correspondent of ours has made the following amusing calculation, as to the distance a bee must fly to obtain a pound of honey. He takes as a basis of calculation that five thousand bees weigh a pound; and that each bee will carry one fourth of its own weight, which would give twenty thousand journeys. Allowing each journey two and a half miles, we have in the aggregate fifty thousand miles, which those industrious insects fly over to obtain one pound of honey.

The New England Farmer.

This early and able advocate of Agricultural Improvement completed its twelfth year on the 9th inst. The editor says:

"Many causes since the establishment of our paper in 1822, have co-operated to encourage the hearts and strengthen the hands of the numerous and respectable class of mankind engaged in cultivating the earth. The progress of improvement in other arts has a tendency not only to augment the demand for the productions of agriculture, but to excite, enlighten and reward every effort to increase the quantity, enhance the quality and facilitate the means of obtaining those commodities which are indispensable to the existence of a great, active and intelligent population. Canals, rail roads, the multifarious methods and devices for employing steam, waterfalls, and other agents of superhuman strength—laborers, which require no supplies of food or raiment, never suffer fatigue, and never fail, if skilfully employed to accomplish their tasks, have been set to work by mechanical ingenuity, in the service of agriculture; and made to reciprocate benefits with the great art, which is the source, support and indispensable requisite of all other arts. Agricultural implements, and the intelligence which renders them most effective have, also, since the period above mentioned been invented and brought into action in numbers and efficacy exceeding the most sanguine anticipations of the friends to improvement.

"By the operation of the above mentioned and other agents in the train of causes and effects, connected with the progress of cultivation, lands in tillage have, in many instances been made to double their products with the same amount of human labor. Improved breeds of animals, new articles and modes of industry, have also contributed to make the pursuits of the cultivator less laborious as well as more profitable. When Science speeds the Plough, Wealth and Honor are awarded to the Ploughman. With these considerations to cheer and encourage us, we propose to persevere in our attempts to render our journal still more useful and acceptable to the public. We solicit the aid of friendly correspondents to enable us to accomplish those objects above mentioned. We should be thankful to receive for publication descriptions of improved implements, machines, &c., new and useful plants, improved breeds of animals, and all other articles useful or ornamental, which promise to give interest to the Farmer, and profit to its patrons and perusers."

For the Genesee Farmer.

MR. TUCKER—If the following is deemed worthy of a place in your valuable paper, you are at liberty to use it. In 1831, I received from a friend the eggs of a silk worm. I kept them in a back room, carefully secured in paper and linen cloth. On the 25th of May, 1832, I set them to hatch in a tin pan with fine wool under them, and covered them with paper and woolen cloth, to preserve them from the ants,—put them on a shelf in a warm place, but removed somewhat from the immediate action of the fire. On the 29th, the worms were hatched, and at 2 o'clock P. M. were fed, and exhibited a healthful state. Enclosing the eggs in wool I found to be improper, as many of the worms became ensnared in it, and were consequently lost. On the 16th of May, 1833, my silk worms were hatched, being six days in coming to life. I am persuaded, however, they would have been more vigorous, had they been eight or nine instead of six, which delay might have been easily attained, by having placed the eggs in a situation less warm. In the latter part of June, 1833, I caused the female millers to be placed on a white mulberry tree, when prepared to lay their eggs. On the 23d of April of the present year, the eggs were in a fine state of health, which is proved by snapping them, and also by their color. The tree stands on a clay soil—not rich, neither well manured—nevertheless it is of fine growth, about twelve years old from the seed. I regret to add that the above mentioned eggs were lost in consequence of the severity of the snow storm in May last. On examining the tree I find the most thrifty limbs killed by the frost, of from two to four feet in length. As a compensation for my trouble, I have received some instruction, and much amusement, from these useful little insects, to which I may add a pair of suspenders, manufactured by our common *wool cards*, and *little spinning wheel*.

I wish some of your correspondents would give information through your paper, how the necessary gloss may be put upon thread or cloth. I think it has been remarked by some one, that Florence oil is used for that purpose, but in what manner I know not.

The Osier, or European Basket Willow.—On a piece of land four feet six inches in length, by three feet four inches in breadth, I raised one hundred and thirty standards, the longest of which measured nine feet and four inches, the shortest seven feet. Those of seven feet made a one bushel basket, and some left.

MALCOM LITTLE.

From the New England Farmer.

Farmer's Work.

Preservation of new made Hay.—It has been recommended by some agriculturists, in housing new made clover hay, especially if it happen not to be thoroughly dry, to mix layers of the hay, while depositing it in the mow, with layers of straw reserved for that purpose. In this way, the strength of the clover is absorbed by the straw, which cattle will eat greedily, when thus managed. Another way to preserve clover, or indeed any other kind of grass, is to salt it, when stowed away in the mow. From four to eight quarts to the ton is recommended, to be scattered, layer after layer, as evenly as possible, so as to impregnate the whole mass.

Saving Seeds.—Gather seeds of all the sorts, which you intend to sell or to sow from the finest, fairest and most fruitful specimens of the plants on which the seeds grew. It is a fact of much importance to be known and practiced on by every cultivator, that vegetables as well as animals may be improved by propagating from the best individuals. Some have found their account in culling their seed wheat from fine plants before harvesting the general crop.

Manure from Swine.—It is a good plan to keep even your hogs at work lazy as they are; they will establish a manure manufactory, if you will furnish the stock and fixtures, and charge nothing for their labor or time. The raw material may consist of brakes from swamps, weeds from fields and gardens, turf, scrapings of ditches and other refuse matter, which you had better make over to your swine, and cart to their pens, than keep on hand.

Fallen Fruit.—It will be consonant with the best rules of rural economy for every farmer, gardener and orchardist to gather all his fallen and decaying fruit, as well as such as being set too thick should be picked in part, in order to make room for the remainder. These you will boil with a little Indian meal, oats, refuse rice, or other farinaceous substance. The fruit will be the more valuable as diet for hogs for having been boiled, and the worms [curculiones] which it generally contains when fallen or decayed, are thus sure to be destroyed.

Pastures and Cattle.—Plaster or live ashes, sown upon pasture grounds, will not only repay a handsome profit by increasing the value of feed by bringing in the finer grasses, such as white clover, &c. but will greatly improve the soil for any succeeding crop. It will not be correct husbandry, when you have turned your cattle to grass to overlook or neglect them. It will be well to see every animal every day; and take care to keep salt always within their reach. We apprehend that farmers often suffer by their negligence in this particular. Good water is likewise a great accommodation in pastures. "Water," says a writer for the American Farmer, "must always be within the reach of all animals at all times, and that of the purest quality. Some farmers, having no running waters in their pastures, give their cattle water twice or thrice a day by driving them to a spring or pump, or stream. They may want water at these times, and may not, just as it happens; but they certainly do not get it at all times when they do want it. Of this we can judge by ourselves. Who could possibly do with water only at certain times, and these times always the same? With the human species this would be insupportable. It is the same with all animals, and the whole benefit of water depends upon its being taken when the stomach calls for it. Water, of all substances that contribute to the support and nurture of animal life and health, is least capable of being regulated in its administration by times and seasons. Animals that have free access to salt require water oftener than those which have no salt; but those that are salted irregularly require constant access to water more than any others, as their thirst is fitful in proportion to the irregularity of their salting.

"Let those who have been careless in this matter try the experiment of giving salt, regularly and plentifully, every other day, with constant access to pure water, and the improved condition of their stock in one month, will induce them to continue the practice thereafter. They will never again see their cattle licking one another, and filling their stomachs with 'witch balls.'"

Some writers, however, deny the necessity of water in pastures for some sorts of stock. Dr Deane observed that "sheep, calves and horses, unless they are worked, it is said require no water in their pastures. The want of water induces them to feed in the night, when the dew is on, and the grass the more nutricious. Cows, however, want pure water." This want of coincidence in opinion among the sages of agriculture deserves consideration, and it were well if the matter were decided by the test of experiment.

We have before stated, page 389, that a mixture of salt with unleached ashes, in the proportion of one quart of fine salt to one half bushel of ashes, and placed where cattle and sheep can have access to it, was recommended by a practical farmer; but it is sometimes useful to give line upon line.

Hay-making.—Make as much of your hay as is practicable in the early part of the season, as there is at that time a greater probability of your being favored with fair weather. The Farmer's Guide asserts that "it has been found by actual observation, for a number of years, that on an average more rain falls in summer after the 15th or 20th of July, than before." "Grass," says Mr. Goodsell, in his Farmer, "after it is mown in wet weather is not materially injured, although it does not dry for some days, provided it is often turned over to prevent its turning white. The loss of nutritive matter does not correspond to its change of color. Timothy (herds grass) cut late, or after the seed has come to its full size, does not look as green as when cut in flower, and yet contains more nutritive matter, and is preferred by most kinds of stock."

How to preserve Peas against drouth.—In an article written by the conductor of Loudon's Magazine, entitled *Notes on Gardens*, &c. we find the following passage. "We were struck with the great breadth devoted to late peas, which looked so remarkably well that, considering the extraordinary dryness of the season, we could not help asking Mr. Oldacre, (the gardener) if he had any particular method of watering them? His answer was, that he never watered them at all after they were above ground. He sowed them in the bottom of drills six inches deep, filled the drill half full of soil, and then gave them such a thorough soaking of water as to saturate all the soil under and about the seed. After this he fills in the remainder of the earth; and the whole compartments being now dry in appearance, he rolls it quite smooth with a heavy roller, and gives no other culture of any kind till the peas are fit to stick."

Spear Grass.

During the last season, a writer in your paper gave his brother farmers some very good and practical advice respecting spear grass. He asserted that it was a worthless grass, and easily removed, at least for the present in all arable land. From this hint one of my brother farmers informed me, that he set his plough a moving and turned in the worthless stuff, (that would not have yielded him more than enough per acre to have paid for the labor of mowing,) and sowed his land to oats and peas and without manure. He procured a very large crop, and in addition he got rid of his spear grass at least for a number of years; for if he sowed it down to clover it would give a valuable return, and the land thus made to yield a good profit. I write to second the views of the writer above referred to and to say that his hints have dond goop; and as I am not one who likes to see a farmer allow land to produce spear grass or any thing which gives him no profit, when it can be avoided at very little expense, and made to return him a handsome income, I hope all our farmers will plough up and destroy this pest, and that they will consider the difference between fencing and paying taxes for land that gives no profit, and the same soil rightly managed and giving a highly profitable crop. We farmers do not calculate enough.—*Me. Far.*

Land for Cultivation.

Our correspondent in the following communication has touched upon an important subject. It will set farmers to thinking, and we trust lead them to important results. The writer is a practical farmer. We shall be glad to hear from him again.—*Portland Courier.*

"We believe that few farmers are fully aware of the importance of selecting the best land for cultivation. We will for example take two pieces of ground—With the same dressing and same amount of labor, one piece will produce 25 bushels corn per acre, the other piece will produce 30 bushels corn per acre—making a difference (reckoning corn at the common price) of five dollars—sown to grain the different value of the crops on these two pieces will be two dollars per acre—and when laid down to grass mown for six years, the difference as above may be fairly estimated as decreasing from two to one dollar per acre. This will give an average difference of two dollars per acre for eighty years, a sum which at first glance would seem small and hardly worth the notice of the cultivator. But the question is, what is the difference of value in two pieces of ground? We cannot conceive the two dollars to be any thing else than interest which will make the principal thirty-three dollars, the actual difference per acre between these two pieces of land. If we are right in the above conclusion (and if wrong we would solicit your correction, Mr. Editor,) it will be perceived that the relative value of land is far from being justly based, and that farmers should not be afraid of a little expense in clearing and fencing ground, where the soil is good and adapted to cultivation.

From the New England Farmer.

Fruit Trees.

The following observations are prefatory to an abridged descriptive Catalogue of the fruit trees in the collection of J. B. Van Mons, a celebrated cultivator of fruit trees in Belgium, Europe. We were favored with the manuscript by R. Manning, Esq. of Salem, Mass. for whom it was translated from the French, by Miss Elizabeth C. Hathborne, of that place. We think the remarks cannot but prove useful to all persons engaged in the raising of fruits, and especially to those who wish to create or introduce new and improved varieties of apples, pears, &c.

Translation.—Being unwilling to leave my correspondents in ignorance of the fruits which I have sent them, designated by numbers alone, I have caused the materials for this catalogue to be collected during a severe illness. There may be omissions in it, but there are no errors; and the repetitions refer to the parent stocks, and to their grafts, but are not unnecessarily employed.

In so vast an establishment, containing not less than 86,000 trees, it was impossible to inscribe at length on tickets the names of all the fruits of which we distributed grafts; and we found it at once more simple and more expeditious to mark on a slip of paper the number attached to the tree, and to point out afterwards the variety to which the number belonged.

We attached a number in lead, suspended by a wire of the same metal, to every tree and graft in the garden, as well as to every sauvageon (ungrafted tree, raised from seed,) from which we gathered fruit, and we noted in catalogues the names or the qualities of the fruits to which these numbers referred. We have thought it expedient to have those catalogues printed.

There are in the first series many numbers to which no descriptions are annexed, because they are occupied by old varieties generally known. The vacant numbers in the second and third series belong to new varieties which have not answered the expectations formed respecting them. Some vacancies are also left by duplicates and triplicates of the same variety, which we had received under the same names.

We have, as far as possible, given the names of the authors of the fruits. By its patrons, signifies that it was found by the cultivator whose name it bears. By ourselves, that it is the result of our endeavors. The articles designated by numbers alone, are necessarily products of our culture.

I have added in my cotalogues the approximate forms of my new fruits, though nothing can be more uncertain than this characteristic, for the form of a pear varies during 12 or 15 years before it is definitively fixed; and there are some which never attain a fixed form, as the Bon Chretien d'hiver, the Beurre Rance, &c. I have compared them to known varieties. I might here compare them to the wild fruits of the same species (sons especes des bois,) but in countries where the kind does not grow spontaneously, there would have been no point of comparison.

We admit into this catalogue only the species which we have been able to send to our correspondents, under the form of grafts, such as the pear, apple, plum and cherry tree. We have, however, discovered a method of conveying under the same form the peach and the apricot tree. It consists in grafting them on the summit, or on the bourgeons (bud's eyes) of the plum tree, and sending the grafted branch before or after the development of the eye, to be grafted *en feute* (or cleft or slit grafting) on another plum tree. We have never yet found this method to fail.

There are many numbers which have not yet received names, because we thought it right to name only the varieties, which in our judgment merited the title of *tres a propager* (eminently worthy to be propagated,) which expressed the highest excellence that a fruit can attain, and requires it to be superior to a St. Germain, a Beurre Gris, a Chaumentelle, a Colmar, a Cressane,&c. Respect to the persons to whom we offer the homage of our fortunate acquisitions by bestowing their names upon the fruits, exacts from us this extreme reserve.

This distinction between fruits *a propager* (to be propagated) and those *tres a propager*, is solely for ourselves, who are so rich in this last quality of fruits, which unites elegance of form, and amplitude of size, to the utmost delicacy of flesh and of juice, while we are so poor in subjects for grafting. The words excellent, exquisite, delicious, annexed to a great number of our new fruits, are equivalent to the declaration that they are as good as the best old varieties.

In another position than that in which we are placed, we might enlarge on the origin, the form, the qualities, I will say the defects, the epoch of maturity, and other particulars of the fruits bearing names. In the next supplement, if it be ever published, we may, perhaps, revert to these detail; but at present I can only cause to be transcribed the judgments pronounced upon each variety, and consigned to my notes.

It may be asked, how we have been able to obtain from our seed plots so many fruits, so extraordinary in all respects? We answer that our method has been to renew incessantly the old varieties, acknowledged as exquisite. By renewing we mean planting always the kernels and stones of the last produced, regenerating thus from father to son. We said to ourselves once for all, that the more a species, being propagated from seed, and at the same time by shoots or suckers, is removed by being repeatedly sown, from a state of nature, the more it must approach a state of art. We have since acted in conformity to this principle, and already at the third renewing, the fruit of the peach and apricot tree is no longer of ordinary merit, and at its fourth sowing the apple is reproduced constantly exquisite. This has not been the case with the pear tree, which still produces ordinary fruit, though no longer bad. But for this characteristic of the pear, and especially that of the incessant variation of its form, pomological researches would be already without an object, and the study of fruits would consist only in a dry acquisition of names.

Our seed plots were differently treated according to the species. The pear trees were planted in squares, and the apple trees were placed in one of the corners of the garden: these species were never planted together. The peach and apricot trees, sown confusedly, were removed only to be placed where they were to remain. The growth of all was restrained by pruning till the moment of permanently placing them; and at transplantation the branches were slightly drawn together, and the roots forcibly so, in order to make the latter subdivide, which causes the tree to bear early. After the transplantation they were not touched. In the second year we examined the pear trees, leaving only those of good appearance, and choosing the others to graft upon. This grafting could not be performed without removal, because the growth of the sauvageons would immeasurably outstrip that of the grafted trees. We therefore raised the trees, just before the frosts, and placed them *en jauge* [in casks or barrels,] in order to graft upon them by copulation, and out of the earth at the end of February; or we grafted them in this manner before the beginning of winter. These grafts have endured with perfect safety the severity of the past winter. This method is preferable to every other for the pear tree and the apple tree. The suffering, which in this case is common to the tree and the graft, secures its taking and determines an equal force of development. It might be called *the graft on one's knee*, or *the graft at the corner of the fire*. It is the only one which should be practiced, except *en feute* (slit cleft) for the paradise and the quince tree, of which every piece of a trunk, branch or root only, two or three inches long and two or three lines thick, may be made useful as a subject.

This selection of subjects for grafting does not prevent our trees from being so near each other as to shoot into the air, like arrows, and to resemble Italian poplars rather than ordinary pear trees; they were not forced by the knife to take a direction contrary to nature; and these trees, so high, so straight, with branches so regular, and unapproached by any insect, were every year covered with fruit from the summit to the foot. The great art in giving to a tree *au vent* (not trained in any particular shape) a regular form in maintaining the equilibrium between its branches, is to make it take from its birth a right direction by attaching it to a proper support.

The new fruits have over the old the advantage of yielding a rich and a constant crop, and of exemption from falling off and from alteration. They are less liable to any malady.

When a peach tree is raised from the stone and an *au vent*, it is as unnecessary to despoil it of its branches as to thin it of fruit; in the third year it puts forth only short branches, which bear without intermission, and whatever be the number of the fruits, the smallest is not less savory than the largest; the flesh of the peaches of seed plots remaining long transparent and greenish. This is also the case with the nectarine, whose fruit *au vent* may be preserved from insects.

I was at first in the habit of placing a graft of the most distinguished of my sauvageons on a lateral branch of a mature tree; but I have always observed that this branch and the parent stock began to bear the same year, so that while the trees were mutilated, nothing was gained in precocity of crop.

It will be perceived that in our last catalogues the number of fruits inscribed *excellent* is much more considerable than in the first: this proceeds in part, it is true, from our more extended cultivation, but also from the circumstance that in proportion as we advance in renewing the varieties the number of distinguished fruits is multiplied.

We also remark, that the more the fruits are renewed, the fewer early varieties do we obtain; for example, in the last year few of our apples and pears of the first crop ripened before winter; and even at this moment (March) I have a great number which are not ripe, and which ripen successively as they advance in merit. It is true that in the selection of sauvageons, we remove all the pear trees that are without thorns and with stout branches and large leaves, as these are signs of precocity, and all the apple trees whose appearance resembles too much that of the early varieties.

It will be observed, that we have principally directed our endeavors to the improvement of pears. This was natural, because the pear has not hitherto been reproduced identically, but under astonishing deviations, which have hardly permitted comparisons. We have, in our thousands of results, obtained forms which resembled each other as to the fruits, but the appearance of the tree, the wood, the foliage, were entirely different; and when two trees had some resemblance in appearance, wood and foliage, the fruit was totally distinct. The following was my mode of passing judgment upon the varieties. I invited to dinner a friend, whose taste in fruits was exquisite, and we tasted together; then I made my two gardeners taste; we discussed for a moment the merits of the fruit, and I consigned the judgments to my notes, with the very expressions which are found in the catalogue. As fruit whose period of maturity is not yet known must be gathered at different times, and at intervals of ten days, we had never less than two hundred sorts to taste. The No. attached to the trees was transcribed upon each fruit. Every variety judged very good, and of the highest quality, was afterward gathered and distributed to connoisseurs, on condition of returning the stones and the kernels: we have never sent a good new fruit to the market; we chose to allow it to rot in order to preserve the seed, rather than to sell it at a high price.

I was obliged to quit Brussels when almost all my sauvageons of the fourth and fifth renewing were about to bear: an object of public utility claimed the ground which my establishment occupied: I shall, perhaps, be compelled to leave my new gardens when nearly all my sauvageons of the sixth and seventh renewing are covered with flower buds. I see that the more the renewings are multiplied, the earlier the sauvageons begin to bear: a great many of our pear trees of three and four years old will produce this year.

In the inevitable disorder attendant on the destruction of an immense cultivation, effected during the severity of winter, it was impossible not to lose some varieties, though we took grafts of all the most precious, and though of these grafts, placed double in April and May on trees out of the earth and half dry, very few perished. To gather grafts and to abandon the trees was all that we could do at such a moment, and when we could ourselves be present only for a day and a half in the week. We are consequently obliged to request our correspondents to return us grafts of those lost varieties, which are in their possession.

Some ladies in Illinois have formed a butter society, for the purpose of encouraging the manufacture of good butter.

From the Baltimore Farmer.

On the Science of Agriculture.

The great importance of having a correct acquaintance of the nature of the plants which we cultivate, and the laws by which they are governed both in their healthy and growing state, and in their diseased state, called the laws of vegetable physiology, and vegetable pathology, must be impressed upon the mind of every reflecting farmer. Unless he has some idea of the regular functions of the several parts of the vegetable system, he can be but illy qualified to foster and train it in health, or to protect and nurse it in disease. This is a branch of agricultural education which has been little attended to in our own country; but we hope to lay before our readers from time to time, such subjects as may lead to a better understanding of the *Science* of agriculture. It would be our highest ambition to lead farmers to a train of scientific observation on this noble occupation which dignifies its votaries to the highest order of men; but which, when followed by the mere artizan, destitute of any knowledge of the first principles of this art, degrades him to the lowest order, and dooms him to remain in ignorance and penury.

We proceed to give from Mr. T. Nuttal's Introduction to systematic and physiological Botany, the generally received opinion of the functions of Leaves.

Anatomy of leaves.—The leaf, by most physiologists, is defined to be chiefly a temporary organ, performing for the vegetable life what the lungs execute in the animal; or as acting the purpose of respiratory organs. Their importance to all the rest of the vegetable structure is unquestionable; and, indeed, so essential are their functions, that their office, at least, is never dispensed with; for, in *aphyllous* plants, such as the Dodder, Cassytha, and many of the Cactusses and Euphorbias, the green or succulent bark performs all the foliar functions. But even when most simple, they also possess the higher character of individuality; as we see by the power some thick and succulent leaves have of acquiring, when planted, a separate existence; and though this possibly is not universal, in consequence of varying circumstances, the deduction regarding the individual nature of the most simple leaf, or foliar lobe, (as elsewhere remarked) is apparently unquestionable.

The leaves exhibit most obvious traits of vitality and utility; they are a kind of neutral or agamous beings, perpetually employed for the welfare and support of the whole vegetable community, with which they are associated. Some of them are destined, by a common metamorphosis, to put on the sexual character, and appear in the disguise of flowers and fruit. Occasionally they exhibit traces of irritable mobility, as sensitive plants; many of them relax and fold in the absence of the sun's light; and in the example of *Hedysarum gyrans*, the minute leaves actually possess a *spontaneous motion!* In fact, in their anatomy we shall find each individual possessed of congeries of all the essential cellular and vascular structure of the vegetable.

In the most cursory examination of the majority of leaves, we perceive that those organs are composed of three distinct parts: one part, firm, and apperently ligneous, constitutes the frame-work or skeleton of the leaf; another, succulent and pulpy, fills up the intermediate spaces of this frame-work; and a third, thin and expanded, encloses the other two, or forms the covering for both surfaces of the leaf. On a closer examination we find that the first of these parts is *vascular*, the second *cellular*, and the third a transparent *cuticular pellicle*. Admitting, therefore, that these parts are present in every leaf, although we may not be able to discover all of them distinctly, owing to the imperfection of our instruments; we may conduct our inquiries into the structure of leaves, in referance to their *vascular*, their *cellular*, and their *cuticular* systems.

From the Maine Farmer.

Garget.

It cannot be otherwise than gratifying to the feeling of every one who is interested in the prosperity of our state, to view the general excitement which appears to be waking up in relation to the improvement of the breed of stock. But in proportion as our improvements progress, it becomes a matter of importance for us to acquire and disseminate every item of information within our reach for the prevention and cure of those disorders to which our cattle are mostly subject.

It is well known that the Garget prevails among cows in this state to a very serious degree; and I believe in general the best cows are the most liable to have it, which often renders them as to milk, partially or wholly valueless. A friend of mine suggests the propriety and utility of raising Garget, (Phytolacca decandra.) His plan is to box up a small corner of the barn-yard and fill it with rich earth; in this the berries may be planted, or the roots or plants set, so thatt he cattle may have free access to it through the season. He says that in the incipient stages of the disorder the cows will instinctively crop the leaves of the plant, and thus become their own physicians.

His cows have never been troubled with the garget since he has adopted this method, although he suffered considerably prior to it; and he very justly observes, that in those states where this plant grows in abundance, the garget among cows is unknown.

The Phytolacca decandra, or garget, is common in almost all countries. In Europe, it is found in Switzerland, Milan, Florence, Portugul and Piedmont. I believe it is also a native of Japan. In America it inhabits a very extensive tract of country from New Hampshire to Mexico, and perhaps farther south. It generally grows along road-sides, along hedges, and in old fields. This is the proper season for setting the plants. The berries are at first of a green color, then red, and when fully ripe they are black; and the proper season for gathering them is in Octocer, when they become soft and ripe. The root of the plant is to be gathered in November when the stalk is perfectly dead, and a bunch of berries may be planted in its stead at the same season of the year.

Its medicinal qualities have been held in high estimation by some, in Fevers, Cancers, Scrofula, Rheumatism, Gout, Dysentery, Eruptions, &c. It operates both as an emetic and cathartic, in its different preparations and applications.

If a variety of names applied to a plant is in any way indicative of its usefulness, then surely this must be eminently so; for we find that in different places it is known by one or more of the

following names: Garget, Cunicum, Cokecum, Julap, Poke, Poke-weed, Pork-weed, Pork-physic, Red weed of Virginia, Virginian Poke, Branching Phytolacca, Skoke Cancer-root, American night-shade, and Red nightshade. But in New England, I believe it is mostly known by the name of Garget. CAROLUS.

July 21, 1834.

On the Advantage of Cutting

FALLEN WHEAT BEFORE IT IS RIPE.

Translated for the Farmer's Register, from the *Journal d'Agriculture etc. des Pays-Bays.*

Although many distinguished writers on agriculture have protested against the practice of cutting wheat before it has reached its full maturity, we think it, nevertheless, our duty to insert in our journal the following article extracted from the excellent collection published by the Agricultural Society of Chalons.

It is generally known that for a seed to have acquired all the qualities which render it proper for reproduction, it is necessary that the plant from which it proceeds should have undergone the elaboration suitable, and passed through the periods requisite for a perfect fructification. It is perhaps less known, although many writers have enlightened farmers upon this point, that the alimentary qualities in cereal plants are produced before the complete maturity of the grain; and that a premature harvest may, nevertheless, yield a good product, if, after having been cut, the plant is subjected to a well regulated dessication. We extract then, with pleasure, from the correspondence of the society, a note of M. Procquez, a farmer, and the Mayor at Sompius (*arrondissemente de Vitry,*) on the measures which he has taken for several years with respect to his fallen wheat. This note contains practical facts, which the society especially desire in their communications with our agriculturists. The results of the experience of our correspondent, while recalling facts already known, are not the proper ones for publication, particularly in the country adjacent to us, in which the harvest of each year is considerably diminished in its most important product, by the circumstance of the wheat having fallen, in consequence of heavy rains, and without any accident on lands where too great a depth of soil, too lavish an application of manure, or any other cause of this nature, produces too rank a vegetation.

"It will doubtless, not be indifferent to the agricultural society," says M. Procquez, "how I save my wheat which has fallen, or become entangled, and how chance instructed me in this plan, which has perfectly succeeded. The first year that I became a farmer, I had seen in some periodical works, that a mould abundant, and filled with fertilizing principles, might be obtained by spreading layers of earth under the cattle, to take it up afterwards and carry it out to the fields. I determined to make this experiment, which had all the promised success, seeing a noble growth of wheat; but my joy was of short duration. Scarcely were the heads developed when my wheat had already fallen to a very unusual degree. I examined it often, and perceived that the grain was sufficiently large, but was evidently withering. Judging that it would come to nothing, I resolved to have it cut, green as it was. The reapers regarded me as crazy to cut wheat so unripe. I, nevertheless, continued my operation, adding the precaution of leaving the sheaves for five or six days upon the field before putting them into the barn.

A month after, being in want of litter for my cattle, I had my wheat thrashed. What was my surprise when I saw a grain well filled, of a yellow color, and presenting a combination of such qualities that I resolved to take it for seed! Here I acquired a new lesson. This grain yielded excellent flour, which had little bran, and was very white; but it was useless for seed, for it produced me at least two-thirds of smutted wheat, occasioning a considerable loss. But experience must be bought, and this loss has proved to me that to avoid having the smut in wheat, it is necessary to sow no wheat which is not perfectly ripe. Since that time, I have taken more care than ever to let my seed wheat ripen, and I have not since had a head attacked by that disease. I have, besides, made this observation, that the years succeeding wet harvests, in which the wheat ripened with difficulty, produce much smut in wheat.

Let us return to fallen wheat. My first trial, which I have since repeated several times, has already succeeded with me, and I am led to believe that, provided the grain has attained its full size, the greener the wheat is cut, the better will be the product. Rye which is too rank may be cut in the same way, and with the same results."

Harvesting.

It is asserted as a general rule, that the proper time to reap wheat, or rye, is when the straw begins to shrink and become white about half an inch below the ear. This appearance is a sure indication that the grain has ceased to receive nourishment from the roots of the plant; and by cutting early, provided it is not taken to the barn or stack too green, the following advantages will be gained: First, the grain will make more and whiter flour. 2d. There will be less wasted by the grain's shelling. 3d. By commencing harvest early, you will have a fairer prospect of finishing before the last cuttings become too ripe, so that much of the grain will shell out in reaping and securing the crop. 4th. If you cut your grain as soon as it will answer, your straw and chaff will contain much more nourishment than if it were bleached and made brittle by the sun, air, dew, and rain, all of which combine to deprive it of most of its value for fodder. 5th. Should you plough in your stubble immediately after harvest, or mow it and secure it for fodder or litter, (either of which modes of management is perfectly consonant with the rules of good husbandry,) the stubble will make much better food for your cattle, or manure for your ground, than if it had yielded all its sweets and much of its substance, to the greedy elements above mentioned.

If your wheat or rye is much affected by blight or rust, it should be cut even while still in the milk, and afterwards exposed to the sun and air, till the straw is sufficiently dry, and the grain so much hardened, that it will answer to deposite in the barn or stack. The heads, in such cases, should be so placed by the reapers as not to touch the ground. This may be done by laying the top ends of each handful on the lower end of the preceding one.

If your grain is encumbered with grass or weeds, you must cut it pretty near the top, in order to avoid as much as possible those extraneous substances. It will also be necessary to reap somewhat earlier than might be otherwise expedient, that you may have time to dry the weeds without danger of the grain's shelling out. If your grain is very ripe when you harvest it, the bands should be made early in the morning while the straw is moist and pliable. And Dr. Deane recommended in such cases, to bind the sheaves when the air begins to be damp toward evening, as the least degree of moisture will toughen the straw.

It has been recommended by several English writers to bind the wheat as well as rye with only one length of the straw. If the straw is pretty long, and not very thoroughly dry, this may be good economy. You save the trouble of making bands; your wheat will dry better in the sheaf, (as the sheaves must of course be small,) and though it may take some more time and trouble to pitch and handle it, we believe that the advantages, in many cases will turn the scale in favor of binding wheat with single lengths of straw.

In stowing wheat or rye, some persons deposite the sheaves on a mow of hay; but this is a bad plan, as the grain presses the hay so that it is apt to become musty, and communicate a musty or mouldy taint to the super-incumbent grain; which will be harder to thresh, than if it had a more dry and airy location. It may be placed on a scaffold of rails, laid on the beams, and over the floor of a barn; though it is not so easy to procure it for threshing, as if it were left on a scaffold of less elevation. But this disadvantage may be more than compensated by its being in a situation favorable for drying. If there is a deficiency of barn room, the sheaves may be stored in stacks. In that case, 'care should be taken that the grain may not draw moisture from the ground, by laying boards, straw, or rubbish under the stack. A better way still is to have a tight floor of boards, mounted on four blocks set in the ground, and so high from the ground as to prevent the entering of vermin.

'In building a stack, care should be taken to keep the seed ends of the sheaves in the middle, and a little higher than the outer ends. No fowls can then come at the grain; and the rain that falls on the outer ends will run off, and not pass towards the center. The stack should be well topped with straw, that the rain may be completely turned off.'

Oats.—It is advised to harvest oats before the straw has wholly turned yellow. The straw will be of little value, if permitted to stand till it becomes white and destitute of sap. Though oats should be well dried on the ground after cutting, they should not be raked or handled when in the driest state. They should be gathered mornings and evenings, when the straw is made limber and pliable by the moisture of the air. If they are housed while a little damp, there will be no danger if they have been previously thoroughly dried.

Barley.—We are told by the wise men of agriculture, that some of the rules which should be observed in harvesting wheat, rye, and oats, will not apply to barley. Willich's Domestic Encyclopedia states, that "with respect to the time when Barley is fit to be mowed, farmers frequently fall into the error of cutting it before it is perfectly ripe; thinking it will attain to perfect maturity if it lie in the swath. This, however, is a very common error, as it will shrivel in the field, and afterwards make but an indifferent malt; it also threshes with more difficulty, and is apt to be bruised under the flail. The only certain test of judging when it is fit to mow, must be from the dropping and falling of the ears, so as to double against the straw. In that state, and not before, it may be cut with all expedition, and carried in without danger to the mow."

Dr. Dean's New England Farmer states, that "Some have got an opinion that barley should be harvested before it is quite ripe. Though the flour may be a little whiter, the grain shrinks so much that the crop seems greatly diminished and wasted by early cutting. No grain, I think, requires more ripening than this; and it is not apt to scatter out when it is very ripe. It should be threshed soon after harvesting; and much beating, after it is cleared from the straw, is necessary in order to get off the beards. Let it lie a night or two in the dew, after it is cut, and the beards will come off the more easily.—*N. E. Farmer.*

The common dark-blue violet makes a slimy tea, which is excellent for the canker. Leaves and blossoms are both good. Those who have families should take some pains to dry these flowers.

Skinless Oats.

At a late meeting of the Warwickshire Agricultural Society, a specimen of the *Avenaiva farina*, or skinless oat, was produced by the Rev. Mr. Knott, which had been plucked that morning out of a piece of ground belonging to that gentleman at Wormleighton. It was produced from seed furnished to him by Mr. Trucker, of Heanton, Punchardon, near Barnstable, Devonshire. According to the account furnished by that gentleman, it was grown in the season of 1830, for the first time it was ever produced in Great Britain, by Thomas Drenzy, Esq, of Clehemen Hall, who obtained the seed through a friend of his at Rotterdam, whither it was imported from Shantag, a remote district in China,and was quite unknown to Europeans till within these three years. The advantages which this extraordinary and valuable grain possesses over all other kinds of oats are numerous: When threshed from the sheaf it is exactly like oatmeal, and is fit for immediate use for culinary purposes, and every other sort which oatmeal is consumed for, the grain being quite free from every particle of rind and husk. The flavor is delicious, and it contains much more farinaceous matter. There is of course considerable saving of oats, and the expense of kiln drying, &c. and one peck contains more nutritious food for a horse, than three pecks of common oats. The produce is most astonishing, the average being twenty-six barrels, of fourteen stone, to the Irish acre, the exact quantity grown by Mr. Drenzy on one acre. It was not sown till the 4th of May, 1830, and was reaped early in August in the same year. It is remarkably hardy, and well adapted to this climate.—*London Periodical.*

From the New England Farmer.

Ruta Baga.

The following is an account of the method of cultivating Ruta Baga, adopted by the Rev. Henry Colman, in obtaining a crop for which he received a premium of $20 from the Massachusetts Agricultural Society in the year 1830.

GENTLEMEN—Accompanying this you have the certificates of a crop of Ruta Baga, raised this year on my farm in Lynn. From these it will appear that on an acre, measured by a sworn surveyor, on one side of the field, there were gathered 741 baskets full; and that 40 baskets of the above named, weighed at the town scales 2750 lbs. net weight. This, allowing 56 lbs. to a bushel, the standard weight assumed by the Society, would give a crop of 903 bushels to the acre.

The turneps were planted on the 29th of June and 2d of July; about one pound and a half of seed was used for the acre; and they were gathered and stored in cellars and in the barn, in the last part of November.

The ground on which they grew is a good soil, neither wet nor dry, and bore the last year an abundant crop of onions, and corn the year preceding the last. It was well manured at both times, and in fine tilth. It was manured with at least six cords to the acre of barn manure the last spring, and sowed again to onions; but the seed entirely failing, it was ploughed, harrowed, furrows struck out, and about eight cords of barn manure spread in the furrows; ploughed again, so as by a back furrow to form a ridge over the manure, and the seed sown with a small drill barrow on the ridges, making the rows about twenty inches asunder. As soon as the plants were of sufficient size, a drill harrow, with small shares fixed to it, to cut off all the weeds, was passed through the rows; and the plants thinned with a small weeding hoe to the distance of about eight inches apart, and the vacant places filled up by transplanting from the supernumerary plants. They were once more harrowed and cleaned, which was a very small labor; and owing to the very unpropitious weather, were not harvested until very late. Some of them were very large; one weighed 15 lbs., and many were nearly as large. The exact expense of cultivating the acre cannot be estimated, as it was intermixed with other farm work; but the whole, from the sowing to the gathering, was not two-thirds of the labor usually bestowed on planting, cultivating, and gathering an acre of potatoes.

My Swedish turneps the last year, of which I raised considerable quantities, were fed off to my oxen, dry cows, young stock, and fatting sheep. To the cattle they were of very great advantage; and for feeding sheep, they proved the last year, by an accurate account, worth from ten to twelve and a half cents per bushel.

The man who has the care of my stock, considers them as among the most profitable feed which can be given, either to fatting or to store cattle. Three years' experiment has increased their value very much for these purposes, in my own estimation.

I am, gentlemen, very respectfully yours,
HENRY COLMAN.

Singular Veterinary Operation.

The following very singular case has been communicated to us by a correspondent. Mr. L. Stephenson, farrier, of Easingwold, brother and successor of the late Mr. J. Stephenson, of Acomb, was lately called in to look at a young horse belonging to Mr. B. Lund, a respectable farmer at Yearsley. On examining the animal, he found a large tumor under the ear, which he at once opened, and on inserting his finger in the orifice, to his surprise he felt a hard substance, which he supposed to be a piece of the cheek bone, that had been chipped off by a blow. Mr. S. then proceeded still further to enlarge the incision to admit the introduction of an instrument, when by great force he succeeded in extricating the substance, which proved to be a large tooth. It is conjectured, that when the horse had been casting his teeth, the one in question had got fastened in the upper jaw, and by continually chewing his food, it had been gradually forced into the place whence it was extracted. The tooth is now in the possession of Mr. Stephenson, the Old Rose and Crown Inn, Long street, Easingwold. The operation was performed in the presence of B. Lund, the owner of the horse, and Mr. Hornby, a neighboring farmer.—*Eng. Paper.*

Hints and Receipts.

Burnt alum held in the mouth is good for the canker.

Tea made of slippery elm is good for the piles, and for humors in the blood; to be drank plentifully. Winter evergreen is considered good for all humors, particularly scrofula. Some call it rheumatism weed; because a tea made from it is supposed to check that disorder.

Prevention of Mildew.—Professor Lindley of the London University, lately lecturing on mildew, gave it as his opinion, that the only effectual method of cure which has yet been discovered, is that recommended by Mr. Bauer—namely, steeping the seeds before sowing in lime water for twelve hours, and then drying them in the air.—*Mechanic's Mag.*

To prevent Beer from becoming acetous.—There is a way to prevent beer from getting acetous, or what is called hard, which is as simple as it is efficacious. Reasoning on the plain principles of chemical science, we were led to try it, and have this summer found its truth and advantage. It is nothing more than to suspend a knob of marble by a piece of tape from the bung hole to near the bottom of the barrel, upon which, being pure carbonate of lime, the acid quality of the beer acts on its incipient formation: it consequently becomes neutralized, and thus is kept from turning hard or sour. In our experiment the marble was considerably eaten away, except where the tape encircled, and the beer remained sound and fresh to the last drop. We mention this discovery as being a point of some consequence to householders, and especially to farmers and their laborers in harvest time; for it is more likely that weak beer should become sour than strong; it is much more healthy to drink it fresh than ever so little turned off, and, in the way of economy, many barrels might be saved, which are every year thrown into the hog-tub from becoming undrinkable. It will do good, however, to every species of beer, and we expect, to any kind of home-made of even foreign wines in cask, which have or are ever likely to become tart or sour.—*Oxford Journal.*

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PRICES CURRENT.

ARTICLES.	PER	July 19. ROCHESTER.	July 14. NEW-YORK.
Ashes—Pot....	100lbs.	$3,25.....	$4,00 a 0,00
—— Pearl..	.....	3,50.....	4,20 a 0,00
Beeswax, yellow	lb.	0,16 a 0,18	20 a 21
Candles, mould	.....	0,10 a 0,11	13 a 14
—— dipped.	.....	0,09 a 0,10	11 a 12
Cloverseed.....	.....	6½.....	6 a 6½
Flax, American.	.....	.....	8 a 8½
Flax seed, clean	tierce	9,00a10,00	10,50a11,00
Flour, Western.	barrel	4,50.....	4,88a5,00
Grain, Wheat..	bushel	0,87½....	1,04 a1,06
—— Rye....	.....	0,62.....	61 a 63
—— Oats...	.....	0,25 a 27	40 a 00
—— Corn...	.....	0,44.....	70 a 00
—— Barley..	.....	0,50 a 56	70 a 71
Hemp, Americ'n	ton	.....	100 a 125
Hops, 1st sort .	lb.	.....	10 a 11
Plaster Paris...	ton	6,00 a 0,00	2,62 a0,00
Beef, Mess....	barrel	0,00 a10,00	9,12 a9,75
—— Prime....	.....	0,00 a 8,00	5,62 a 5,75
Pork, Mess....	.....	14,00a15,00	13,25a14,00
—— Prime....	.....	11,00	9,25a10,50
—— in the hog.	100lbs.	4,00.....	.....
Tallow.....	.....	7,50 a 8,00	6,75 a 7,00
Hay.....	ton	7,00 a 8,00	9,00a11,20
Apples.....	bushel	50 a 100	.....

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POETRY.

For the Genesee Farmer.

The wife of Asdrubal.

BY W. H. C. H.

"The flames spreading rapidly, they continued to fly from one part of the building to another, till at length they got on the roof. Here Asdrubal's wife appeared, uttering the most bitter reproaches against her husband, whom she saw standing below in company with Æmilianus, exclaiming, "Inglorious wretch! what degrading actions hast thou perpetrated to preserve an existence so dishonorable! But this instant thou shalt witness the atonement of thy guilt in the death of these two guileless infants." On this she stabbed both the children with a dagger, and precipitating them from the top of the temple, immediately leaped down after them into the flames."—MAVOR.

Upon the burning roof she stood,
Unbraided was her hair,
And loud shouts from the multitude
Rose wildly on the air.
Pale Terror in her feeble frame
Awoke no icy thrill;
She stood as if the wreathing flame
Was subject to her will.

Two wailing infants trembling clung
Unto her in that hour;
Maternal love her sinews strung
With more than human power.
Did not the father in his gore,
With thousands sleep below,
While haughtily the mother bore
The insults of the foe?

Or if no banner for a shroud
Wrapt mournfully his clay,
Was not his manly form and proud
Of raging flames the prey?
Did he upon the couch of pain
By friends forsaken lie,
Or bound by the corroding chain
Within a dungeon sigh?

No! standing by the Roman chief,
While fiercely spread the fire,
He heard his children for relief
Call vainly on their sire.
With slaughter purple was the ground
Whereon he tamely stood;
The pride of Carthage lay around,
Of unclean birds the food.

His well known form the dauntless wife,
Saw dimly through the smoke,
And sending up no prayer for life,
Indignantly thus spoke:—
"Much rather would I fighting die
Where strong men are laid low,
Than basely with dishonor buy
Existence from the foe.

"Inhuman wretch! the blush of shame
May well suffuse thy cheek;
Faint are thine infants, and my name
Their lips refuse to speak.
Ah! they no more with laugh of glee,
Thy homeward steps will greet;
Their dirge the shout of foes will be,
And smoke their winding sheet.

"The gentle ring-dove will not fly
From his affrighted mate,
And little ones, when foes are nigh,
But stay and share their fate.
Will man then to preserve his life,
The ties of nature break—
To save his little ones and wife
Not one brave effort make?

"Villain, atonement for thy guilt
In this deed now attest!"
She thrust a dagger to the hilt
Within each infant's breast—
The mother to the hungry flames
Her bleeding children flung—
One loud, appalling shriek arose,
And after them she sprung.

LUCIFER MATCHES.—Take two parts (by weight) of the Sulphuret of Antimony, and one part of Cholerate of Potash. Grind both to a fine powder, and make them into a paste with a solution of gum. Common brimstone matches are to be dipped into it, and, when dry, they will inflame by being drawn through a folded piece of sand paper.

Education in the United States.

Our boasting—Its foundation—Uninstructed Children 1,250,000—*Freemen, who cannot read* 500,000—*Their annual increase* 12,500—*In Prussia, an absolute monarchy, all can read.*

Perhaps no people on earth boast more of their fine country, good laws, good institutions, and among the rest, their *good schools*, than the people of the U. States. Education, especially common education, is as it were our watch-word. We have our *excellent systems*; our *noble funds*; our host of school books and improved methods of instruction; our *army of teachers*; our millions of the young, whom we are training up in the Infant, the District, the High, and the Sabbath school, to knowledge and to usefulness, to virtue and to piety. We are raising up a generation to perpetuate our free Government and its excellent institutions!—At least, we say all this; and we probably believe it. Perhaps it would be difficult to insult a man in any way more readily, than by telling him that he does not duly appreciate the importance—to his children, and indeed to the whole republic—of a good education.

But let us examine our claims to this pre-eminent regard and attention to education. Here then we are; a free people, of 13,000,000; and among us the following numbers of children, of a suitable age to attend school, who are destitute of the means of instruction:

Pennsylvania 250,000; Tennessee 160,000; Kentucky 103,337; Illinois about 20,000; New Jersey 11,473; New York 50,000; Rhode Island 4403; Maryland, Virginia, North and South Carolina and Ohio 462,000; and the other western States and Territories 150,000. The number in other States of New England except Rhode Island, is unknown. In Connecticut and Massachusetts it is small; in some of the others more considerable. We ought also to add that instead of 50,000 in New York, some place the number at 80,000.

Here then we have about a million and a quarter of children (the Annals of Education thinks 1,400,000) between the ages of five and fifteen, or one tenth of our whole population, destitute of instruction; and all this, too, in spite of our improved systems, books, teachers, &c.

But again. A joint committee of the Pennsylvania Legislature have recently reported that there are in that State, 100,000 *voters* who cannot read; and that the annual increase of this class is 2500. In Indiana 18,000 adults cannot read; in New Jersey 1500. Connecticut even, has a few of this class, though the number is small; and there are some in every State in the Union. If the proportion of *voters* in the other United States who cannot read, bears the same proportion to that of Pennsylvania as the number of their uninstructed children does, the whole number of this class of freemen is half a million; and the average annual increase 12,500.

Let the reader think of this a moment, while we compare our country with one of the monarchies—absolute ones too—of the old world.

Prussia, at her last census, had a population equal or nearly equal to ours. Of these, 2,043,030 were between the ages of seven and fourteen years; the age at which the law requires them to attend school. The number in actual attendance in 1831, was 2,021,422; leaving a balance of only 21,609 *not* in attendance. And even this number, it is confidently stated, is barely sufficient to account for the children of the higher ranks educated at home, those attending private schools, and the boys, under fourteen attending classical schools.

The truth is that although the custom of the country does not require them to enter school till seven years of age, yet when they have reached that age, *parents are obliged to send them.* And lest there should be an evasion of the law, in the case of poor children bound out apprentices their masters are obliged to prove that every apprentice either has received or is receiving, the benefits of public or private instruction. Besides, the clergy are enjoined to admit none to the communion table, that have not gone through the ordinary course of school discipline.—And as the consequence of all this—rigorous as it may be—a glorious result is obtained. Prussia has no uninstructed children, and of course no ignorant adults; or if she has now she cannot have in the next generation. She knows nothing except by report of a *million and a quarter of uneducated children, and a half a million of adults who cannot read*—in a population no larger than her own.

We are sorry to have it in our power to make a comparison so disadvantageous to ourselves.—More than this, we are ashamed, positively ashamed, of the nation to which we belong. Two millions, or almost two millions, of a people calling themselves *free, enlightened and Christians*, who cannot read and write! It is too much, positively too much. Is there no remedy without first curing us of self conceit? We believe not; and therefore we have made the comparison, disgraceful as it is to our republic.—*People's Mag.*

From the Baltimore American.

A subterranean Indian Village has been discovered in *Nacoochee Valley* in Georgia, by gold miners, in excavating a canal for the purpose of washing gold. The depth to which it is covered varies from seven to nine feet; some of the houses are embedded in a stratum of rich auriferous gravel. They are thirty-four in number, built of logs from 6 to 10 inches in diameter, and from 10 to 12 feet in length. The walls are from 3 to 6 feet in hight, forming a continuous line or street of 300 feet. The logs are hewed and notched, as at the present day. The land beneath which they were found, was covered, at its first settlement by the whites, with a heavy growth of timber, denoting a great antiquity to these buildings, and a powerful cause which submerged them. Cane baskets and fragments of earthen-ware were found in the rooms. The account is contained in a letter to the editor of the Southern Banner, from which the following further particulars are extracted:

The houses are situated from 50 to 100 yards from the principal channel of the creek; and as no further excavations have been made, it is more than probable that new and more interesting developments will be made when the land is worked for gold.

A great number of curious specimens of workmanship have been found in situations, which preclude the possibility of their having been moved for more than a thousand years. During my mining operations last year, I found, at one time about one half of a crucible, of the capacity of near a gallon. It was ten feet below the surface, and immediately beneath a large oak tree, which measured five feet in diameter, and must have been four or five hundred years old. The deposite was diluvial, or what may be termed table land. The stratum, of quartz gravel, in which the vessel was imbedded, is about two feet in thickness, resting upon decomposed chlorite slate.

It is not difficult to account for the deposite of those substances in alluvial soil, for the hills are generally very high and precipitous, and from the immense quantity of rain which falls, the streams are swollen to great hight, sweeping every thing with them, and frequently forming a deposite of several feet in thickness in a season; but some of the diluvial land is from 10 to 50 feet above the present level of the streams. These deposites exhibit appearances of as great attrition as those recently formed.

There was a vessel, or rather a double mortar, found in Duke's Creek, about five inches in diameter, and the excavation on each side was nearly an inch in depth, and basin like, and perfectly polished. It was made of quartz, which had been semi-transparent, and had become stained with the iron which abounds in quantity in all this country. In the bottom of each basin was a small depression half an inch in depth and about the same diameter. What its use could have been, is difficult to conjecture. Some suppose it was used for grinding paint, &c. or in some of their plays or games. The high finish and its exact dimensions induce me to believe it the production of a more civilized people, than the present race of Indians.

Respectfully yours, M. S.